AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An improved packaging for establishing optimum atmospheric conditions for respiring produce, comprising:
a non-porous polymeric material;
a set of microperforations on said polymeric material, wherein said set of microperforations are drill holes and based on a number and a size of said microperforations, control said optimum atmospheric conditions within specified O_2 and CO_2 concentrations for said respiring produce, and wherein said set of microperforations are placed in a registered target area on said polymeric material.

2. (Previously amended) The improved packaging material according to claim 1, wherein said polymeric material is selected from the group consisting of polyethylene, polypropylene, polyester, nylon, polystyrene, styrene butadiene, cellophane, and polyvinyl chloride, in monolayers, coextrusions, or laminates.

3. (Original) The improved packaging material according to claim 1, wherein said polymeric material is heat-sealable.

4. (Original) The improved packaging material according to claim 1, wherein said polymeric material has a thickness in the range of 0.4 to 8 mil.

5. (Original) The improved packaging material according to claim 1, wherein said polymeric material provides a total O_2 Flux ranging from 150 cc/day-atm to 5,000,000 cc/day-atm.

6. (Original) The improved packaging material according to claim 1, wherein said polymeric material provides a total O_2 Flux ranging from 200 cc/day-atm to 1,500,000 cc/day-atm.

7. (Original) The improved packaging material according to claim 1, wherein said polymeric material forms a bag.

8. (Previously Amended) The improved packaging material according to claim 1, wherein said polymeric material is a heat sealable film forming a lid.

9. (Original) The improved packaging material according to claim 1, wherein said polymeric material is formed into a semi-rigid container with a thickness greater than 25 mil.

10. (Currently Amended) The improved packaging material according to claim 7, wherein said bag is substantially enclosed ~~has an upper portion about~~ with an opening edge, side edges, and an opposing bottom edge ~~of said bag~~, and wherein said registered target area is a small identifiable area ~~in an upper~~ within one-quarter distance from said opening edge ~~of said upper portion~~ of said bag.

11. (Currently Amended) The improved packaging material according to claim 7, wherein said bag is substantially enclosed ~~has an upper portion about~~ with an opening edge, side edges, and an opposing bottom edge ~~of said bag~~, and wherein said registered target area is a small identifiable area ~~in an upper~~ within one-third distance from said open edge ~~of said upper portion~~ of said bag.

12. (Previously Amended) The improved packaging material according to claim 1, wherein said registered target area is located in an area that prevents occlusion of the microperforations by product, labels or other packages.

13. (Previously Amended) The improved packaging material according to claim 1, wherein each of said microperforations has an average diameter between 110 and 400 microns.

14. (Previously Amended) The improved packaging material according to claim 1, wherein said polymeric material has a CO_2 transmission rate that is 2.5 to 5.0 times greater than the O_2 transmission rate.

15. (withdrawn)

16. (withdrawn)

17. (withdrawn)

18. (withdrawn)

19. (withdrawn)

20. (withdrawn)

21. (Previously added) The improved packaging material according to claim 1, wherein each of said microperforations has an average diameter in the range between 120-160 microns.

22. (Previously added) The improved packaging material according to claim 1, wherein said polymeric material has a CO_2 transmission rate that is 3.4 to 4.0 times greater than the O_2 transmission rate.